

*Sub. exp.*

3. The method according to Claim 2 wherein the substance analyzed is blood.

4. (New) A reagent useful for the detection of virally caused obesity comprising an isolated nucleic acid capable of hybridizing to a nucleic acid from adenovirus type 36p.

5. (New) A method for the detection of virally caused obesity in an obese subject comprising the steps of

isolating a nucleic acid from the body of the subject; and

assaying the isolated nucleic acid for nucleic acid sequences from adenovirus type 36p.

6. (New) A method for the detection of virally caused obesity in an obese subject comprising the steps of

isolating a sample of biological tissue or fluid from the subject; and

assaying the sample using an immunological probe for the presence of adenovirus type 36p.

7. (New) An immunogenic reagent comprising an immunogenic component selected from the group consisting of live inactivated virus, killed virus, viral coat protein, and a segment of a viral coat protein including an epitope, the virus being adenovirus type 36p.

8. (New) A method of screening adenovirus agents for association with obesity comprising the steps of

screening obese humans for the presence of an adenovirus strain which is more abundant in obese individuals than in non-obese individuals, such a strain being a candidate strain; and

introducing virus of the candidate strain into animals and testing the animals for both obesity and for cholesterol level to identify if the candidate strain results in both obesity and lowered cholesterol level.